

TIME (VANCOUVER) PDT / UTC -7	TIME (UTC)	Thu April 29	Fri April 30
05:00 AM - 05:30 AM	12:00 PM - 12:30 PM	Opening Ceremony	Day 2 Opening
05:30 AM - 06:00 AM	12:30 PM - 01:00 PM	Networking	Paper Presentations
06:00 AM - 07:00 AM	01:00 PM - 02:00 PM	Keynote - Onur Mutlu, ETH Zurich	
07:00 AM - 07:30 AM	02:00 PM - 02:30 PM	Virtual Roundtable	Virtual Roundtable
07:30 AM - 08:30 AM	02:30 PM - 03:30 PM	Paper Presentations	Paper Presentations
08:30 AM - 09:30 AM	03:30 PM - 04:30 PM	Keynote - Carlo Ratti, MIT	Keynote - Jie Wu, Temple University
09:30 AM - 10:30 AM	04:30 PM - 05:30 PM	Paper Presentations	Paper Presentations
10:30 AM - 11:00 AM	05:30 PM - 06:00 PM	Virtual Roundtable	Virtual Roundtable
11:00 AM - 12:00 PM	06:00 PM - 07:00 PM	Paper Presentations	Paper Presentations
12:00 PM - 12:30 PM	07:00 PM - 07:30 PM	Happy Hour!	Closing Ceremony

Paper Presentations

April 29, 2021 | 07:30 AM - 08:30 AM (VANCOUVER TIME | PDT/ UTC-7)

Session 1 - Security and Privacy	Session 2 - Data Science	Session 3 - Internet of Things (IoT)	Session 4 - Computing	Session 5 - Agents and Multi-agent Systems
<p>137 - Effective Detection of Cyber Attack in a Cyber-Physical Power Grid System</p> <p>318 - On the Design and Engineering of a Zero Trust Security Artefact</p> <p>211 - A Compact Quantum Reversible Circuit for Simplified-DES and Applying Grover Attack</p> <p>313 - A Review of Time-Series Anomaly Detection Techniques: A Step to Future Perspectives</p>	<p>135 - Transdisciplinary Principles of Narrative Discourse as a Basis for the Use of Big Data Communicative Properties</p> <p>66 - Topology and Structure of Directed Acyclic Graphs</p> <p>396 - A Review on Physical and Data-Driven based Nowcasting Methods using Sky Images</p> <p>37 - ERP Implementation in the Oil Sector of Middle-East: A Case Study in Sultanate of Oman and Saudi Arabia</p>	<p>55 - IoT Beehives and Open Data to Gauge Urban Biodiversity</p> <p>328 - Layered Interoperability for Collaborative IoT Applications</p> <p>324 - Internet of Things (IoT) based Plant Monitoring using Machine Learning</p> <p>10 - Convergence of 5G with Internet of Things for Enhanced Privacy</p>	<p>388 - Development of a Software System for Simulation and Calculation of the Optimal Time of Upgrading Equipment</p> <p>41 - Auto Attendance Smartphones Application based on the Global Positioning System (GPS)</p> <p>352 - Automated Ontology Instantiation of OpenAPI REST Service Descriptions</p> <p>93 - Making Financial Sense from EaaS for MSE during Economic Uncertainty</p>	<p>306 - Cognitive Advantage</p> <p>326 - Digital Ecosystems Control based on Predictive Real-Time Situational Models</p> <p>164 - Dynamic Formation Reshaping based on Point Set Registration in a Swarm of Drones</p> <p>184 - Customer Driven Bargain on Multi-Agent System</p>

Paper Presentations

April 29, 2021 | 09:30 AM - 10:30 AM (VANCOUVER TIME | PDT/ UTC-7)

Session 6 - Security and Privacy	Session 7 - Data Science	Session 8 - Internet of Things (IoT)	Session 9 - Computing	Session 10 - Agents and Multi-agent Systems
39 - A Multi-layered Approach to Fake News Identification, Measurement and Mitigation	385 - IHEE: An Improved Hybrid Energy Efficient Algorithm for WSN	249 - Gesture Recognition in an IoT Environment: A Machine Learning-based Prototype	332 - High Level Software Separation: Experience Report for e-Health and Legal Metrology	224 - The Adaptive Affective Loop: How AI Agents can Generate Empathetic Systemic Experiences
62 - Introducing the TSTR Metric to Improve Network Traffic GANs	94 - Daily Variation Rates Analysis of the Number of New COVID 19 Cases in the Italian Regions through Machine Learning Algorithms	343 - Location Awareness in the Internet of Things	63 - Tapis: An API Platform for Reproducible, Distributed Computational Research	206 - From What is Promised to What is Experienced with Intelligent Bots
98 - Human Factors in Biocybersecurity Wargames	307 - Artificial Neural Network for Educational Standard of University Student for Real-Time	196 - Towards Designing a Li-Fi-based Indoor Positioning and Navigation System in an IoT Context	151 - Transforming Audience into Spectator/Actor: Assimilating VR into Live/Theatre Performance	405 - firstGlimpse: Learning How to Learn Through Observation via Memory Modeling with Reinforcement Learning
68 - HyPA: A Hybrid Password-based Authentication Mechanism	386 - Cloudsim for a Hierarchical Load Balancing Strategy	128 - Smart Soil Monitoring Application (Case Study: Rwanda)	258 - Towards the Evaluation of the Performance Efficiency of Fog Computing Applications	406 - Communicative Artificial Intelligence in Multi-Agent Gaming

Paper Presentations

April 29, 2021 | 11:00 AM - 12:00 PM (VANCOUVER TIME | PDT/ UTC-7)

Session 11 - Security and Privacy	Session 12 - Data Science	Session 13 - Communication	Session 14 - Human-centric Computing	Session 15 - Machine Learning
<p>106 - Trust Models and Risk in the Internet of Things</p> <p>103 - The Effects of Data Breaches on Public Companies: A Mirage or Reality?</p> <p>145 - Mobile Per-App Security Settings</p> <p>200 - Blockchain Technology for Improving Transparency and Citizen's Trust</p>	<p>179 - An Attribute Matcher for Test-to-Code Traceability</p> <p>219 - Behavior Analysis of Atmospheric Components and Meteorological Variables Applying Data Mining Association Techniques</p> <p>220 - Discovering Patterns of Time Association among Air Pollution and Meteorological Variables</p> <p>368 - Automatic Multiple-Choice and Fill-in-the-Blank Question Generation from Arbitrary Text</p>	<p>67 - Body Area Networks: A Data Sharing and Use Model based on the Blackboard Architecture and Boundary Node Discovery</p> <p>53 - In the Footsteps of Pierre Duhem: How a Modern Theory of Value Relates to XIX Century Physics</p> <p>187 - Tensor Multi-Linear MMSE Estimation using the Einstein Product</p> <p>144 - Application of DSM and Supervised Image Classification Method for Sun-Exposed Rooftops Extraction</p>	<p>60 - Managing Manufacturing Assets with End-Users in Mind</p> <p>121 - Interactive Learning Tool for Image Compression using Singular Value Decomposition</p> <p>339 - To Chat or Not To Chat? Assessing how Smartness, Personalisation and Efficiency Differ in Conversational and Graphical User Interfaces</p> <p>52 - Investigation of Acceptance of a System for Individualization of Technology for Human-Technology Interaction</p>	<p>304 - FireBERT: Hardening BERT Classifiers Against Adversarial Attack</p> <p>271 - Prediction of Sudden Cardiac Death using Ensemble Classifiers</p> <p>260 - Latency Critical Data Processing in Cloud for Smart Grid Applications</p> <p>174 - Performance Evaluation of Weighted Entropy based Fusion Technique for Face Recognition with Different Pre-processing Techniques</p>

Paper Presentations

April 30, 2021 | 05:30 AM - 07:00 AM (VANCOUVER TIME | PDT/ UTC-7)

Session 16 - Deep Learning	Session 17 - Data Science	Session 18 - Communication	Session 19 - Human-centric Computing	Session 20 - Networking
394 - Dynamic Selection of Weights of Ensemble Models using Reinforcement Learning for Time-Series Forecasting	49 - Aggregate Nearest Neighborhood Queries	139 - Optimization of Logistic Flows in the Mail Processing System in the Republic of Kazakhstan	342 - Root Causes of Interaction Issues in Agile Software Development Teams: Status and Perspectives	195 - Distributed Density Measurement with Mitigation of Edge Effects
46 - Controlling Potential Information to Unify Internal Structure for Improved Interpretation and Generalization in Multi-Layered Neural Networks	217 - A Model-Agnostic Framework to Correct Label-Bias in Training Data using a Sample of Trusted Data	346 - Interface Design of Transport Mobile Commerce APP: A Case Study of Taiwan Railway	233 - User Behavior Assessment Towards Biometric Facial Recognition System: A SEM-Neural Network Approach	311 - Reading Network Peculiarity in Children with and without Reading Disorders
248 - Impact of News on the Commodity Market: Dataset and Results	82 - Research of Brand Equity: Focused on User Experience of VR Advertising	228 - A Survey of 6G Wireless Communications: Emerging Technologies	261 - Communication in Human - Machine - Product Triangle - Universal Properties of the Automation Chain: Witness Simulation Example	71 - Performance Improvement in NOMA User Rates and BER using Multilevel Lattice Encoding and Multistage Decoding
59 - Pothole Detection using Deep Convolutional Neural Network	209 - Visual Quality Comparison of Ocean Wave Effects Produced by Houdini in the Engine	336 - New Paradigm of Hydrometeorological Support for Consumers	150 - How to Make Artificial Intelligence Self Manifest the Sense of Humour	310 - A Development of Real-Time Failover Inter-Domain Routing Framework using Software-Defined Networking
117 - Video Face Recognition System: RetinaFace-Mnet-Faster and Secondary Search	110 - Distal and Proximal Components of Sensory Experience in Neural Network Modeling of the Success of Intellectual Activity	347 - Cardiovascular Signal Processing: State of the Art and Algorithms	133 - A Real-Time EEG Music Assisted Safe-Driving System	101 - Techno-Economic Assessment in Communications: Models for Access Network Technologies
230 - Preimage Attacks Against Lightweight Scheme Xoodyak based on Deep Learning	50 - Unifying Spatial Keyword Indexing in Continuous Search on Dynamic Objects	250 - Towards an Efficient and Secure Virtual Wireless Sensor Networks Framework	272 - Audio Flaneur Experience for Bar-Hopping	222 - Application of Actor-Network Theory (ANT) to Depict the Use of NRENs at Higher Education Institutions
308 - Tongue Color Classification based on Convolutional Neural Network	97 - Behavior Pattern based Performance Evaluation in MOOCs			

Paper Presentations

April 30, 2021 | 07:30 AM - 08:30 AM (VANCOUVER TIME | PDT/ UTC-7)

Session 21 - Deep Learning	Session 22 - Data Science	Session 23 - Natural Language Processing	Session 24 - Machine Learning	Session 25 - Ambient Intelligence
<p>358 - A Multiscale Graph Convolutional Network using Hierarchical Clustering</p> <p>111 - ACKEM: Automatic Classification, using KNN based Ensemble Modeling</p> <p>23 - Circle Feature Extraction from Remote Sensing Satellite Images based on Polar Coordinate Representation of Wavelets</p> <p>167 - A Comparative Study of Learning Algorithms on a Call Flow Entering of a Call Center</p>	<p>125 - Informatics based Study on Acoustic Doppler Current Profiler Dataset</p> <p>276 - Mining Time-Stamped Electronic Health Records with Referenced Sequences</p> <p>142 - GenExSt: A Tool to Identify Correlation of Gene Expression after Normalization with Housekeeping Genes</p> <p>223 - Decisions, Data, Panic and Probability in the Pandemic: Finding Humanity's Best Path Forward</p>	<p>333 - Intelligent Chatbot based on Emotional Model Including Newly-Coined Word and Emoticons</p> <p>395 - COVID-19's (Mis)Information Ecosystem on Twitter: How Partisanship Boosts the Spread of Conspiracy Narratives on German Speaking Twitter</p> <p>102 - Sentiment Sentence Construction Algorithm of Newly-Coined Words and Emoticons Dictionary for Social Data Opinion Analysis</p> <p>24 - Analyzing Performance of Classification Algorithms in Detection of Depression from Twitter</p>	<p>349 - Pervasive Computing for Context based Recommendations in Mobility Domain</p> <p>12 - A Modern Approach to MOOC Recommender Systems using ICT Job Classification</p> <p>15 - Research on Single-Channel Blind Deconvolution Algorithm of Single Mixed Image</p> <p>398 - Leaf based Plant Identification System for Sri Lankan Medicinal Plant</p>	<p>351 - A Secure and Privacy Preserving System Design for Teleoperated Driving</p> <p>138 - Modeling Traffic Congestion in Developing Countries using Google Maps Data</p> <p>285 - Intelligent Collision Avoidance and Manoeuvring System with the Use of Augmented Reality and Artificial Intelligence</p> <p>348 - Analyzing Pedestrian Crossflow through Complex Transfer Corridors</p>

Paper Presentations

April 30, 2021 | 09:30 AM - 10:30 AM (VANCOUVER TIME | PDT/ UTC-7)

Session 26 - Deep Learning	Session 27 - Data Science	Session 28 - Natural Language Processing	Session 29 - Machine Learning	Session 30 - Ambient Intelligence
<p>286 - Pretraining Federated Text Models for Next Word Prediction</p> <p>319 - Fact Checking: Detection of Check Worthy Statements through Support Vector Machine and Feed Forward Neural Network</p> <p>20 - Question and Answer Classification with Deep Contextualized Transformer</p> <p>263 - Smart Entrepreneurial Systems: An Application of Deep Reinforcement Learning in Improving Entrepreneurship Mentorship</p>	<p>86 - Model for Estimating the Optimal Parameter Values of the Scoring Matrix in the Entity Resolution of Unstandardized References</p> <p>363 - Metrics to Measure Code Complexity based on Software Design: Practical Evaluation</p> <p>124 - Anonymity in COVID-19 Online Donations: A Cross-Cultural Analysis on Fundraising Platforms</p> <p>354 - A Fast and Exact Motif Enumeration Algorithm for Dynamic Networks</p>	<p>378 - Comparative Evaluation of Several Classification Algorithms on News Posts using Reddit Social Network Dataset</p> <p>350 - Identifying Subject-Position and Power Relation using Natural Language Processing with Fairclough Critical Discourse Analysis</p> <p>364 - Model-Driven Chats: Enabling Chatbot Development for Non-Technical Domain Experts through Chat Flow Visualization and Auto-Generation</p> <p>218 - Job Recommendation based on Curriculum Vitae using Text Mining</p>	<p>344 - Machine Learning and Natural Language Processing in Domain Classification of Scientific Knowledge Objects: A Review</p> <p>340 - NLP Semi-supervised PU Learning with Reduced Number of Labeled Examples</p> <p>327 - Training with Reduced Precision of a Support Vector Machine Model for Text Classification</p> <p>407 - An Unsupervised Machine Learning Approach for Medical Image Analysis</p>	<p>277 - Towards Participatory Design of City Soundscapes</p> <p>147 - Progressive Segment Routing for Vehicular Named Data Networks</p> <p>123 - iDATA - Orchestrated WiseCIO for Anything as a Service</p> <p>367 - Smart City Sensor Network Control and Optimization using Intelligent Agents</p>

Paper Presentations

April 30, 2021 | 11:00 AM - 12:00 PM (VANCOUVER TIME | PDT/ UTC-7)

Session 31 - Security and Privacy	Session 32 - Data Science	Session 33 - Communication	Session 34 - Human-centric Computing	Session 35 - Machine Learning
<p>404 - An Assessment of Obfuscated Ransomware Detection and Prevention Methods</p> <p>203 - SCADA Testbed Implementation, Attacks, and Security Solutions</p> <p>268 - D3CyT: Deceptive Camouflaging for Cyber Threat Detection and Deterrence</p> <p>341 - Homomorphic Password Manager using Multiple-Hash with PUF</p>	<p>48 - The Data-Centric Lab: A Pharmaceutical Perspective</p> <p>204 - Visual Analysis of Sales Temporal Evolution using KMeans, MultiStream and GeoChart</p> <p>205 - Air Quality Prediction based on Long Short-Term Memory (LSTM) and Clustering K-Means in Andahuaylas, Peru</p> <p>221 - Improving Classification Models using the Frequency of Terms and a Percentage Relation Approach Between Classes for Emergency Calls</p>	<p>198 - Capacity Enhancement of High Throughput Low Earth Orbit Satellites in a Constellation (HTS-LEO) in a 5G Network</p> <p>403 - Measurement of Work as a Basis for Improving Processes and Simulation of Standards: A Scoping Literature Review</p> <p>109 - Booting a Linux Kernel under Bhyve on ARMv7</p> <p>51 - S-band Patch Antenna System for CubeSat Applications</p>	<p>335 - Electromyography Signal-based Gesture Recognition for Human-Machine Interaction in Real-Time through Model Calibration</p> <p>65 - Co-designing Technologies for Well Being: A Robot Companion for Older Adults</p> <p>375 - How can Humans Drive the Development of Ethical Artificial Intelligence?</p> <p>148 - Improving Cognitive Functions in Older People: Stroop Task Solution</p>	<p>320 - A Systematic Literature Review About Idea Mining: The Use of Machine-Driven Analytics to Generate Ideas</p> <p>257 - Credit Card Fraud Detection by Combining Synthetic Minority Oversampling and Edited Nearest Neighbours</p> <p>259 - A Combined Approach for Text Detection in Images using MLP Neural Networks and Image Processing</p> <p>387 - Probabilistic Feature Selection for Interpretable Random Forest Model</p>